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ABSTRACT

Reindustrialization problems in the United States (U.S.) include unemployment, low productivity, inflation, and inadequate economic growth. To determine how to improve economic performance, a careful, rational evaluation must be made of such factors as tax policy, spirit of risk, managerial effectiveness, rates of innovation, research and development, and human resource training and education as they apply to industry. Unlike Japan and countries in Western Europe, the U.S. does not understand the need to invest in major training and education efforts to service the skill needs of private and public sectors. Neither is there evidence of an awareness of the key relationship between the inadequate investment in human resources and problems of inflation and productivity. The Japanese human resource investment approach--life-long employment with continuous retraining of all employees--has major implications for some U.S. labor force problems. To move toward a really modern labor force, the U.S. should rethink the decision to change ti definition of acceptable levels of unemployment and consider the experiences of other major industrial countries. Vocational education researchers should evaluate the human resources-capital investment programs in Japan and West Germany and determine how such approaches can be adapted in U.S. industry. (YLB)

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Occasional Paper No. 71

THE REINDUSTRIALIZATION OF THE UNITED STATES: IMPLICATIONS FOR VOCATIONAL EDUCATION RESEARCH AND DEVELOPMENT

by

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FOREWORD

The current emphasis on the economic issues surrounding a slowing of productivity in the United States gives the topic of this presentation a vital importance. Dr. Herbert E. Striner spoke to the National Center staff on the topic of reindustrialization, its relation to productivity, and to the role of vocational education in economic development.

Dr. Striner is the Dean of the Kogod College of Business Administration, The American University in Washington, D.C. He received a doctoral degree in economics from Syracuse University. He has served as a lecturer on productivity for the IBM Executive Development Program, as a member of the U.S. delegation to NATO, and as a member of the U.S. Chamber of Commerce Committee on Manpower and Education.

Dr. Striner studied the role of productivity and economic development in countries such as Denmark, Germany, France, and Japan. Recently he was interviewed on an NBC television program that reported on productivity in Japan. Dr. Striner is one of the world's experts on this topic. He examines the hard decisions that must be made in order to correct some of our economic problems.

On behalf of the National Center for Research in Vocational Education and The Ohio State University, we are pleased to share with you the presentation by Dr. Herbert E. Striner: "The Reindustrialization of the United States: Implications for Vocational Education Research and Development."

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

THE REINDUSTRIALIZATION OF THE UNITED STATES: IMPLICATIONS FOR VOCATIONAL EDUCATION RESEARCH AND DEVELOPMENT

Permit me to plead guilty to using this paper as a "stalking-horse," masking other purposes. I intend not only to deal with issues that are critical to our nation's reindustrialization problems such as unemployment, low productivity, inflation, and inadequate economic growth but also with our penchant for nonsensical rhetoric that we substitute for plain talk and common sense.

Does anyone here really believe that a nation with the highest output per employee, a multi-trillion dollar GNP, the largest volume of petrochemicals, computer products, aircraft, and communications equipment exports in the world is really in the process of completely rethinking and redoing its industrial base? The prefix re means to do again. Just what is it we are supposed to be doing again?

The fact that steel, autos, and other industries are in deep trouble is no reason for this search for a national mea culpa and frenetic flailing about as though we are among one of the underprivileged, underdeveloped countries of the world.

We are indeed in trouble. Though our current output per employee hour is the highest of all the major industrial nations in the world, our low rate of productivity gain during the last decade will ensure losing our number one position by 1986. We have much to do, and we had better start doing it soon; but catchy and meaningless phrases, such as "reindustrialization" or "zero sum game," do not really get at our basic problems or stimulate rational measures. They certainly do not separate the wheat from the chaff.

To mention firms like Texas Instruments and Chrysler Motor Company in the same breath is to get some sense of the broad spectrum of efficiency to incompetence that exists in our economy. While the world looks to our oil-rig manufacturers as unsurpassed in excellence, it finds our steel industry to be a pale reflection of its former position of superiority. The fact that such differences exist is not new. The body economic is a dynamic, ever-changing multiplicity of cells, components, and appendages.

Such factors as tax policy, spirit of risk, managerial effectiveness, rates of innovation, research and development, and human resource training and education are of significance to each industry, but in varying degrees. Only by a careful, rational evaluation of such factors as they apply to each industry and to companies within an industry, can we determine how to improve economic performance.

There are, however, a few factors that are of generic importance to a nation's performance. It was not by error that the first hundred or so pages of Adam Smith's *Inquiry into the Nature and Causes of the Wealth of Nations* deals with labor. Smith saw as key to the wealth of any nation a well-trained, specialized labor force. It was so in 1776, and it is so in 1981.

The miraculous performance of the economy of Japan has taken place on an island with no oil, coal, timber, iron ore, copper, cotton, wool, wheat, soy beans, or cattle to any real degree. Its one great resource is a trained, motivated labor force, managed with great skill and daring.

The Japanese, West Germans, French, and most nations in Western Europe have embraced, not merely accepted, the philosophy of the necessity to invest in human resources. To build and maintain an up-to-date labor force is essential for a technology-oriented nation. Our unwillingness to understand the need to invest in major training and education efforts in order to service the skill needs of our private *and* public sectors has begun to move us toward a possible catastrophe.

Not only is there an apparent lack of concern over this situation, but there also is no evidence of an awareness of the key relationship between our inadequate investment in human resources and our problems of inflation and productivity. In every one of the major industrialized countries of Western Europe, as well as in Japan, there are *three* factors that are seen as being key to dealing with inflation and productivity. Fiscal, monetary, and human resource policies are seen as forming a simultaneous equation, necessary to deal with the problems of inflation and productivity.

This is not to say that the Germans, British, Belgians, French, or Japanese do not have problems of unemployment or inflation. They do. But their rates of unemployment and inflation have been far below ours, while their productivity rate increases each year have been vastly greater than ours. For example, the European rates of unemployment are about 50 percent less than ours, their rates of inflation are far below ours, and productivity is 400 to 600 percent higher. But the availability of a constantly upgraded labor force is considered essential.

In Europe, the West Germans have led the way since 1963, when they enacted a law establishing the right for every German citizen, whether employed or unemployed, to as much as two years retraining for a higher skill, with all costs paid *plus* a stipend that is inversely related to the last income. In the lower-income brackets, the stipend is almost 100 percent of the last salary. The French copied the concept of this program, with some variations, in 1971, and the British in 1974. The Swedes and Danes have had similar programs for many years before 1963.

The Japanese have a different type of human resource investment approach. The government assumes very little responsibility for dealing with unemployment, vocational training, or upgrading of the labor force. With a very different cultural orientation, no pun intended, the private sector assumes a unique set of responsibilities. Thus, in Japanese industry, the tradition of life-long employment can work only because of the assumed responsibility by management to provide for continuous retraining of all employees, especially as new production techniques and new product lines are introduced as part of industrial growth.

This managerial philosophy is based on an economic rationale as well as a cultural tradition. Modern Japanese management has found that it makes sense to view labor as a "fixed cost." That is, no matter what the new technology, a skilled, trained labor force is necessary. Why not retrain (while providing job security) rather than lay off or fire and then attempt to hire a new group of employees? There is no better way, in fact, to obtain quality work and organizational loyalty.

The Japanese approach, which is found in all of its major corporations and most of the medium-sized firms, is contrasted by Nakane[1] when he compares the American philosophy of employment with that in Japan:

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1. Chie Nakane *Japanese Society* (Middlesex, England: Penguin Books, 1973), pp. 18-20.

> Here is demonstrated a radical divergence between Japan and America in management employment policy: A Japanese employer buys future potential labour and an American employer buys labour immediately required. According to the Japanese reasoning, any deficiencies in the current labour force will be compensated by the development of maximum power in the labour force of the future; the employer buys his labour material and shapes it until it best fits his production need. In America, management buys ready-made labour.

The Japanese approach, which also is found in many European countries, has major implications for a number of our labor force problems. Matching new jobs and calling for new skills can be handled within the firm if that organization ensures that it has the raw materials it can train (or have trained). This is more efficient than if the firm must always rely on placement services, inadequate resumes, or misleading or mistaken past work histories. It certainly can help to provide the basis for a more equitable use of the company's available work force, both on a sex basis and a skill basis. In an article concerning this subject, Ronald Dore[2] states that the Japanese firm "considers itself to be buying, not a skill, but a lifetime's work."

In essence, such countries as I have mentioned see labor as a form of capital in which it makes sense to invest—and re-invest—in order to lower unemployment, increase productivity, and lower inflation.

Our view is, as you know, quite different. We still are captive to the unemployment insurance compensation philosophy of the Great Depression; namely, help workers for a limited period of time after they have lost a job, with about 35 percent of their former pay, and hope that they will get work after a while. For the young unemployed who have not been in the work force the minimal number of quarters to qualify for unemployment compensation, we come up with a limited number of public service jobs or a limited number of training opportunities. The public service jobs have to be appropriate for the low level skills and poor reading levels possessed by many if not most of these young people, so there is no real training involved. Indeed, until very recently, the CETA training titles accounted for much less than half of all CETA funds. When the situation begins to get bad, really bad that is, we start to hear about major new youth employment or training programs. These "major new programs" eventually dwindle as the crises that triggered them subside, but the basic problem of underinvestment in vocational and skill training remains.

What happens, unfortunately, is this: Not only do we fail to deal with the fundamental problem, we even try to change our definition of the problem. For example, since 1970 we not only have changed our definition of what we call acceptable levels of unemployment, but we also have looked into the question of whether we are computing properly the level of unemployment.

Until 1970 we were able to achieve levels of unemployment below 4 percent. It may be hard to believe, but during the period 1966-69, the unemployment rate was between 3.5 percent and 3.8 percent. During the mid-sixties, the accepted norm for unemployment in the United States, as it had been since the early fifties, was around 3 percent. Around 1970, the number that showed up more frequently was 4 percent. During the last five or six years, we have been told that perhaps a new norm of 5 percent should be set. Now the reason for these shifts in the "normal" level of unemployment has in no way been justified by any real rationale or research. The basis grows out of that old motto, "If you can't beat them, join them."

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2. Ronald Dore, *British Factory, Japanese Factory: The Origins of National Diversity in Industrial Relations*
2. (London: George Allen & Unwin, 1972), pp. 111-112.

With regard to the question about the unemployment data and the possibility that these data might, it is hoped, be causing an upward bias (overestimation) in the unemployment statistics, an interesting ploy was attempted during the last couple of years. A presidential commission, headed by Sar Levitan, was established to look over the ways in which we gathered—and still gather—our unemployment data and determine whether these procedures still made sense. This commission finally concluded that the data, and data-collection techniques, are pretty much acceptable. No help there. Indeed, there *can* be no help as long as the officials responsible do not accept the fact that our basic approach to unemployment problems is fundamentally wrong and that we simply have to adopt a new one to deal with the realities of the world since the last sixties—rather than pre-World War II. For those officials who do not know this (and some do), there is a real stress problem, with which I would not like to live. They know that to move toward a really modern labor force, one that has a truly comprehensive approach such as those in Western Europe or Japan, we have to—

1. admit that what we have been doing since 1970 has been wrong;
2. admit that we have at least fooled the public, if not ourselves;
3. admit we have ignored valuable, applicable experiences of other major industrial countries;
4. tell people that the newer models of labor force programs will cost more, but will yield far more in return;
5. lay ourselves open to the accusation that we have played politics with an overwhelmingly important economic matter, and we have cost the economy billions in lost output, lower productivity, and unemployment benefits paid out.

Now for those economists and public officials who are confronted by that damnable list, we do not have to be mind-readers to know what choices will be made: more of the usual unemployment program band-aids. For the psychologists in the audience, we are confronted with a classical case of "double-avoidant conflicts." In such instances, we know what happens, at least in government. I think the following quote from a good text in psychology forecasts, as well as explains:

> The individual tends to maintain his (or her) existing attitude structure not only because it provides his (or her) basic source of security in dealing with the world but because it requires less effort to follow established patterns than it does to modify them or adopt new ones. This tendence to resist change in established ways of perceiving and acting has been referred to as "inertia" on the individual level and as "cultural lag" on the social level.[3]

My reasons for not being too hopeful about leadership from Washington derives from the fact that I have resided in that city since 1951, and have observed the patterns of behavior of its leaders, both Democrat and Republican. My position is further supported by the recent behavior of professional economists in government and public offices. On July 13, 1980, *The New York Times* "Week in Review" section featured, on page E3, a fascinating interview with the liberal academic economist Robert Lekachman, former U.S. Secretary of Labor Ray Marshall, and Professor Herbert Stein, formerly chairman of the President's Council of Economic Advisers during the Nixon and Ford administrations. The entire interview dealt with our troubled economy. To get some sense of how we got to where we are, and why we may not get to a "promised land" soon, permit me to cite a few quotations from the people who lead or have led us in designing our economic policies. Let's start with Mr. Stein.

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3. James C. Coleman, *Abnormal Psychology & Modern Life* (Chicago: Scott, Foresman & Co., 1956), p. 83.

> Since I entered this field in the thirties, I'm rather reluctant to recognize the existence of profound changes. We are suffering from a number of problems, which have to be kept basically separate and are mainly the consequence of errors of public policy over the past twenty years.
>
> We are most obviously suffering from a recession. But the American economy has gone through lots of recessions. By and large, they're not traumatic experiences for the country as a whole; I don't expect this one will be. This recession may be more severe than most; that will really be a consequence of a failure to take inflation seriously.
>
> The basic but really more difficult problem is the slowdown in the growth of productivity. I keep insisting we do not know the causes. Many people say we do; I think we do not really know quantitatively. I would [add] one problem that is going to be dominant in the next five or ten years—the need for a substantial increase in our expenditures for defense. We are not yet facing up to the implications.
>
> But all in all, this is a tremendously productive economy. I'm not particularly concerned that the Japanese or Germans are rising in productivity more rapidly than we are. With some changes in emphasis, we can get through a period—which may be a grim period—of some five years or so, and come out to a much more satisfactory condition.

When Secretary Marshall was asked, "You don't think you underestimated the strength of the economy in 1977-78 and stimulated it too much?", his answer was fascinating. He said, "I certainly do not. We got unemployment down to 5.9 percent before the next shock started." It almost makes one feel that an unemployment level of 5.9 percent is a "norm," doesn't it? It is also interesting to note that since 1971 we have gone below 5 percent only once, and that was 4.9 percent in 1973.

One last quote from former Secretary Marshall regarding this same issue is instructive.

> You have to be concerned about both the immediate and the long run. Doing what we have to do to gain control of the energy problem, for example, will have some inflationary effect. But you hope you help solve a basic problem. I think the same thing about unemployment. Take the automobile industry, the main source of the increase in unemployment in the past year. We're doing it in the way I think we ought to do it. We're working with labor and management to help them solve their problem.

While it is true that United States loans have kept the Chrysler Corporation from going out of existence, recent news about our government, the auto firms, and the United Auto Workers union has not been too cheering. Continuing efforts to impose import quotas on foreign cars or of forcing some of them to produce a limited output in the United States avoids a central fact of life. In Japan a car is typically assembled with a hundred fewer hours of human labor than in the United States. This translates into about $600 per car in manufacturing costs. And this gap has been widening by about 4 percent per year.

A good part of this is accounted for by the superior use of robot machine tools. In addition, both the United States and foreign car dealers I have spoken to are impressed with the industrial design features of the Japanese cars, many of which result in lower maintenance costs for the consumer. Herb Stein and Ray Marshall may not be too worried about these matters, but of course they are not making cars or producing television sets.

Since Herb Stein is a noted proponent of the classical market system, as he firmly supports the punishment of going out of business when management makes the wrong decision, I must admit to wishing that there were some way to apply this system of rewards and punishments to politicians and members of the President's Council of Economic Advisers. Instead, of course, the usual rewards —tenured positions on faculties or senior positions with banks—are still the rule.

I might add, to provide some balance in my reactions to Professor Stein and ex-Secretary Marshall, that Marshall's reference to energy and inflation also reflects what is perhaps the most popular myth about inflation: that energy is the chief villain regarding the problem of inflation. It is instructive to note that between 1975-1980 the rate of inflation in Japan averaged around 4 percent, while in the United States it averaged around 9 percent. Japan gets *all* of its oil from abroad, while the United States still relies on imported oil for less than half of our oil consumption.

It is amazing how often people have to be reminded that the Japanese, Germans, and United States—like all other major industrial consumer nations—pay the same price, essentially, for oil. If anything, because of our past domestic "old oil" versus "new oil" regulations, the United States has paid a bit less for its oil than Japan or Germany. Both countries have lower rates of inflation and unemployment, and higher productivity rates.

Now what can be done about this mess? That is, what can we do about it before we get to the point of a "norm" of 8 percent unemployment, a "norm" of an 18 or 19 percent prime rate of lending, and a "norm" of a zero percent rate of productivity increase, all of which should begin to produce a major stress throughout the nation?

I think the leadership will have to come from some new sources, among which will have to be some new alliances. The lead in West Germany in 1963 for an investment policy *in people*—in order to produce a labor force that was constantly being retrained and upgraded—came from industry. The major industrial firms there had gone through post-World War II problems of unemployment, inflation, and production. They realized that in addition to fiscal and monetary policies that had to be sound, there had to be an effective way to guarantee a skilled labor force that could meet industry's needs for up-to-date labor. Industry led the way, with help from the trade unions, to the continuing education program I mentioned earlier.

I think vocational education researchers should begin to evaluate the human resources-capital investment programs in countries such as Japan and West Germany. Remarkably little has come from our vocational education establishment about what has worked well in other countries and how we can adopt such approaches in United States industry.

I believe that teams of industry people and vocational educators should go to industrial firms and relevant government agencies in these countries focusing on such questions as the following:

1. How often and in what ways are adults trained and retrained?
2. What are the most effective ways to train people? Through what organizations?
3. How do they forecast skill needs? How accurate are the forecasts?
4. What funding techniques are used to support training programs?
5. What role does counseling play?
6. How does one deal with disadvantaged groups, e.g., the Turkish "guest workers" in Germany?
7. Have there been any cost-benefit studies?

8. Which industries have benefited most?
9. What have we learned of use to the United States?

The research needs are ample and represent, I believe, a much-needed change of direction for vocational education researchers. The results will find a ready market, I am afraid, as our industries continue to find skilled workers in short supply, and as unemployable, unskilled workers grow in number in the lines outside unemployment and welfare offices. Thus far, the new administration in Washington has paid scant heed to this ticking time bomb—but the hot summer is approaching.

QUESTIONS AND ANSWERS

Question: You have expressed a refreshing and stimulating approach to human resource policy. I am just wondering, as you have indicated a couple of times in your comments, if the new administration is actually overlooking such an approach. Is there any indication anywhere that the new administration is giving some serious thought to this approach to human resource policy?

Dr. Striner:

The question is whether or not the new administration is giving any serious thought to the sorts of suggestions concerning human resource policy that I have just made. I can discover no indication of interest. I have looked under every convenient rug, around every nearby corner, and I have found none. I will say that I have good reasons for believing that there is none, because in February I wrote an article that was published on the opinion/editorial page of the *Washington Star* about this approach. As a result of that article I did receive some inquiries from several Democratic congressmen, but none from any Republican congressmen. I wrote to two friends of mine about this idea, both of whom are highly placed officials in the Reagan administration. I have not yet heard from one; I did get a very polite response, expressing mild interest, from the other one. There was no interest that I could discern from anyone in the U.S. Department of Labor.

Question: I would like to hitchhike on the previous question, and perhaps take you out of the realm of what you know, to what you speculate might happen. It seems to me that many of the things being discussed concerning economic policy may call for new types of relationships for government—such as a more harmonious relationship between government and business, and a new industrial policy in terms of investments in R&D, regulations, and savings policies. What is the likelihood that these kinds of initiations on the part of government will be forthcoming in the current administration, or are we just going to have laissez-faire and an attitude of "if the government would just back away, somehow these things will happen without it"?

Dr. Striner:

I am rather pessimistic with regard to the short run, because I think that we are caught up, right now, in an interesting combination of economics and mystical revelation; sort of a religious experience, which is interesting to watch. Since many of us have secure jobs, I suppose economics is becoming a sort of spectator sport in one sense. Yet the fact that many people are unemployed is a serious business. Also, most of us who are employed are being affected because of a serious inflationary problem. Right now I do not see anything turning around to change this. For example, moving away from the job skills area, let us examine something as basic as research and development and how it relates to productivity.

Although productivity is based on many factors, one of these factors is an adequate supply of trained, educated people. It is based on a set of relationships that promote constructive output and harmonious relationships rather than completely adversarial ones. An important and significant part of productivity relates to research and development. Now, the present proposed budget is going to cut research and development supported by the government further. This is serious for a couple of reasons. The first reason is because, traditionally, close to 65 percent of all of the basic research done in the United States has been through the support of government funds. This is understandable because basic research has no specific product in mind. It is concerned with fundamental inputs, fundamental information; it is risky; and government tends to be the one that will support this type of research. However, since 1965, basic research as a percentage of the total R&D has dropped from 8 percent to 4 percent. It will drop even further this year.

My next point is that while government can choose to reverse the amount spent on research and development just by increasing or decreasing the budget, government cannot choose to increase the existing number of R&D scientists overnight. Let me give you a few fascinating figures. Examine the number of R&D scientists per 10,000 in the labor force. In 1965, Japan had twenty-five; they now have fifty. West Germany had twenty-three; they now have around forty. The United States had sixty-four; we are now down to fifty-seven. Out of that fifty-seven, about 30 to 40 percent are in the military area; while in the case of Japan, less than 1 percent of their fifty are in the military. Therefore, with regard to the ultimate resource in R&D—the individual, the scientist, the engineer—there is a pipeline problem. It takes approximately four to six years to have an input in terms of increasing the number of scientists and engineers in R&D. If we made up our minds to change the situation today, it would take four to six years to see any progress in that direction.

What I see is not only a lack of interest in moving in the right direction, but also this fascinating mixture of revelation, religious experience, and the acceptance of, for example, the Laffer curve. Are you all familiar with the Laffer curve? (See figure 1.) One of the favorites of the new administration is an economist by the name of Arthur B. Laffer. Professor Laffer came up with this curve relating government revenue to the tax rate. The point is made that, obviously, when the tax rate is zero, government revenues are zero. On the other hand, when the tax rate is 100 percent, government revenue is zero. This is not a very complicated relationship. Although Laffer is given credit for this major insight, actually the relationship was first established by Adam Smith. Also, in 1844, a French economist by the name of Jules Dupuit made some interesting observations on this same matter. He attempted to get data but could not, because as you can imagine, this is a complicated sort of analysis when you start moving from the conceptual framework to establishing the actual quantitative relationship. Based on this unsupported insight, the administration accepted as its basic philosophy that we are at the point where the tax rate is so high, industry and people are being discouraged from working and producing. Their motivation is disappearing. This belief is at the heart of the approach we now have for cutting back taxes. I am not saying that the tax rate may not be too high with regard to specific items such as stimulating replacement of capital equipment; I, for one, think it is. I think that we really do have to examine our tax policy with regard to depreciation rates, savings, and other areas. But the question raised by Laffer is whether or not the level of the rate of taxation is such that it is turning off the economy. Laffer says yes!

About three months ago in the *Wall Street Journal*, there was an interesting article referring to a study which, as far as I can determine, is the only recent study looking into the quantitative basis for the Laffer curve. It was done, happily, by someone with absolutely impeccable credentials from an impeccable organization; namely, Professor Don Fullerton at the Woodrow Wilson School at Princeton University, for the National Bureau of Economic Research. His study, according to the *Wall Street Journal,* indicated that—given the data which the U.S. Treasury Department provided

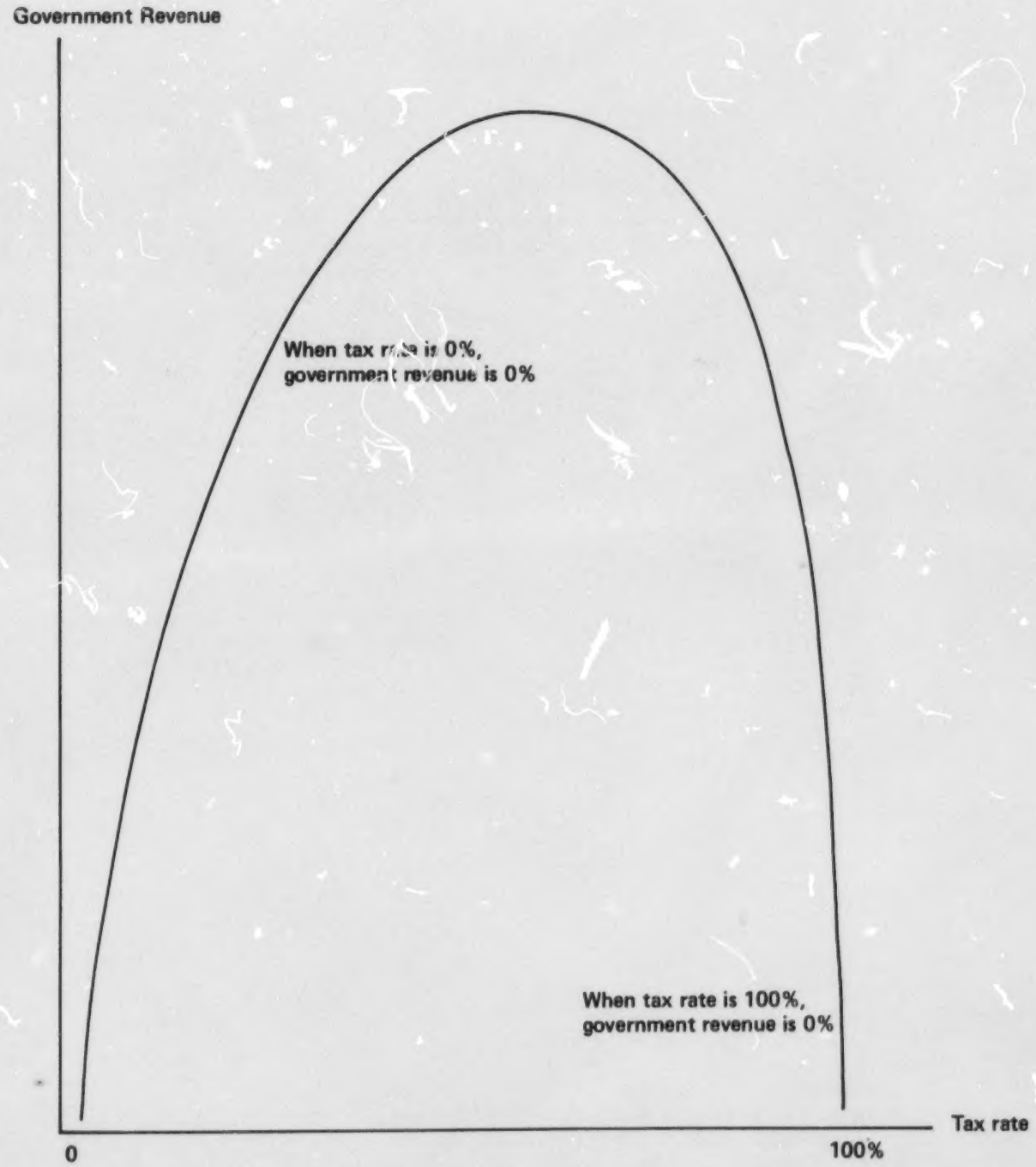

Figure 1
Laffer Curve

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(along with financial assistance)—the probable point at which an economic "turn off" could be expected was at the 71 percent of gross income level. Fullerton's study indicates that we are not even close to that figure.

Question: Given the fact that the service industry in our country now makes up a significant part of our employment picture, there has been some criticism that the GNP does not take into consideration the productivity in the services sector. Can you comment on this?

Dr. Striner:

We have productivity data for the services sectors as well as for the manufacturing sectors and agriculture. There is no doubt, though, that it is more difficult to get as much of a sense of significance out of some of the service productivity data than out of the manufacturing, because in the case of producing an automobile, for example, the product is far more observable. You can kick it; you can stumble over it; you can drive it; you can see it. However, if you are talking about services provided by a faculty member, in terms of productivity, it is more difficult to collect data on what was delivered. But for all of the service sectors—trade, wholesale, insurance—we have productivity data. The data in the services sector indicate much lower rates of productivity gain than in the manufacturing sectors, including some negative rates of productivity gain.

Question: It appears to me that as we seek to understand these other industrial models of human resource development, we must be aware that each is based on a kind of paternalism, from industry or from government, that never developed in this country. Put another way, we have nurtured a personal independence that puts much more responsibility on individuals to protect their livelihoods and sustenance. This has contributed greatly to the way our industrial and business system operates with regard to human resources. It may be well and good to ask a lot of questions in Europe and Japan, but what questions do we ask in this country regarding the process by which young people come to employment—and productivity? And of whom do we ask these questions?

Dr. Striner:

Let me put your question into a generic context. The problem is whether the approaches to human resources in other countries are in a cultural context that makes it difficult to translate what they have done in terms of our own culture. I think the term that you used was a "paternalistic mode." Let me answer your question this way. To begin with, let us examine the country with the most radical cultural difference—Japan. The Japanese are quick to give the United States credit for most of the major innovations in their management techniques. As a matter of fact, in Japan, once a year they award the Deming Prize, named after Dr. W. Edwards Deming, an American, who, beginning in the early fifties in Japan, was able to convince Japanese industry and government that they were capable of moving away from the junk they produced prior to World War II to high quality products. The Deming Prize is awarded to the company and individuals who have done the most for productivity and quality control in Japan that year.

The Japanese took much of what they felt to be most significant for productivity, quality, and management techniques from our culture. Now whether or not we can reimport this philosophy was, up until four or five years ago, something that I said could be done. However, the idea was almost immediately rejected by most industry people with whom I talked.

The reaction was that the Japanese worker was very highly motivated, hard working, and identified in a paternalistic sense with the firm, the employer, the family, the entire concept of the extended family. On the other hand, the case of the United States worker was quite different. They were "obviously" not as motivated, and in addition were seen as being lazy and unionized. This nonsense was believed until around 1973. About that time, Japanese industry came to the U.S. Sony set up a television manufacturing plant in San Diego, using those "lazy, unmotivated, slovenly American workers", but with Japanese management techniques, quality control circles, and a whole set of different relationships between management and the employees. They then began to compete with American manufacturers. Within a year, the Sony plant in San Diego had achieved the same record levels for quality and productivity as the Tokyo plant of Sony.

Therefore, to begin with, I would suggest that what the Japanese were able to import from us —the flexibility of mind, the imagination—be used again in our own management techniques. The Japanese looked for what could be used, and they adapted it to their society. We find it difficult to do this for a number of reasons. Most of these reasons are psychological. I would say, as an economist, the real problem of productivity is not an economic problem. It is a behavior modification problem. Economists do not know much about behavior and are unhappy about dealing with it. However, every problem in nature is a multidisciplinary problem. No problem in nature exists as an economic, or sociological, or psychological problem alone. If we are to deal with the problem of productivity, this has to be understood.

Question: With respect to the role of the public sector in training and retraining, you have mentioned a number of models. Do you see the West German approach of an entitlement under law, with a stipend, or do you see the Japanese approach of job security as being viable for this country? I don't think that anyone argues with the need to train. The question is how to do it. What type of model are you suggesting?

Dr. Striner:

Before we arrive at any possibility of an active human resource development policy, we really have to embrace the notion of investment in human resources. That is first. Unless we get that accepted politically, I do not think any model can be devised to deal with the problem of continuous training. Now, let me suggest that we do have the model already. When I received my first Ford Foundation travel grant, and I wrote the book *Continuing Education as a National Capital Investment* back in the late sixties, I went to Germany to do research. While I was in Germany looking at their programs, the Minister of Labor from Southern Bavaria outlined the German approach to me. He explained that everyone was entitled to a certain amount of training, and everyone being trained was entitled to a certain stipend. I said, "That is fantastic. Where did you get this idea from? I have to put this in my paper—this is the key item." He said, "We got this idea from your GI bill." I said, "Of course!"

Then I thought about it. When I got out of the army in 1946, I was told that having been in the armed service for four years, I was entitled to the maximum benefit: up to four years of education with all costs paid. The stipend of a little over $100 a month could provide a lot in 1946. Then, a brand-new, one-bedroom apartment was only $50 a month—and that included utilities. Therefore, that stipend was enough money to pay my rent and to buy most of my food. The entitlement gave me my books. It even went so far as to pay for my doctoral cap and gown—the government bought it for me. The German model, basically, was the GI bill.

In 1946, however, the GI bill was seen as being practical in the United States for two reasons, one which is commonly known, the other which is not commonly known. The first reason, which was probably the less important of the two, was gratitude for the war effort on the part of the average veteran. I will tell you, however, what I think the primary reason was. Beginning in 1944, when it seemed apparent that we were winning the war, Congress became concerned about the Great Depression. Were we going to go back into a depression after the war was over? The government did several things, one of which was to set up the Council of Economic Advisers, and to pass the Employment Act of 1946. But another concern was, as evidenced by the fascinating legislative history of the GI bill, what are we going to do with all these men getting out of the army, the navy, and the air force? They are all going to be without jobs. The answer was to put them in schools. The GIs did not enroll in universities only; the stereotype that they all returned to universities is not at all the case. There was a tremendous resurgence of vocational education and vocational training.

So, I will tell you what I am suggesting as a model. Pass a law that says, basically, whether you are employed or unemployed, if you wish to enroll in a retraining program to upgrade your skills, all you have to do is show up at the employment office to be given a battery of tests to determine what your capabilities are, where your problems are, and whether we can give you some counseling information on the types of job opportunities that exist. Then we would establish the training sites, which could be located in private firms, vocational schools, community colleges, and other training institutions. For example, one of the great, old proprietary training schools was the RCA Institute in New York. It did a superb job of training in electronics. But the law could provide individuals with the option of attending either a vocational institution that is set up on the public or private basis. The law would provide them with this entitlement. All an individual would need to do is show up at the registrar's office, as I did in 1946 at Rutgers.

The point I am making is that there is a training model—both in our history, and in Germany. Germany has an economy very similar to ours in terms of culture, values, and patterns, and the model is working there. It is based on, probably, the set of values that Maslow has suggested. People really are concerned about worth. They are concerned about doing what is necessary to achieve security, with peer recognition going up the scale. By the way, in terms of their security, people are quick to learn if there is a program available that will permit them to achieve what they want to achieve. People do look for information to help themselves, and most act on such information. The GIs did this, as do the German workers.

Question: I am interested in the comparative cost of technical training in America as it relates to Germany and Japan. Secondly, is that training used to deal with social problems as in the United States where we try to solve the problems of the handicapped or the underemployment of women? Also, is there coordination? It is my feeling that in our country there is a lack of coordination. We are forever spending money to train people, but in fields that have no vacancies.

Dr. Steiner:

Starting with the question about social problems first, in the case of Japan, you should forget the question of upper-level employment for women; they are a sexist society by our standards. The only time you see a woman in the labor force in Japan, even with a big company, is in a blue-collar-type job or secretarial position that calls for serving tea. You very rarely see women in any managerial positions. Japan is interesting from one point of view, but I do not use them as a model in all things.

My major interest in examining the Japanese model is in their philosophy of continuous investment in the labor force. The Germans, on the other hand, have used their law and their program to deal with the handicapped. They provide special training as well as special tools if the handicapped are involved. In the case of the guest workers, one of the questions that usually comes up is: "Well, don't the Germans use their guest workers, the imported Turks, Greeks, Italians, Spanish, and Portuguese, to fill the low-skilled job slots without training them?" These workers did come to the country with the idea of filling those low-skilled jobs. However, under the German law, all of these workers are entitled to the same type of training as citizens, and many of them take that training. Certainly, the Germans use their legislation as a device for orienting and acculturating guest workers. I do not think it has been too successful, by the way. Everything I have seen leads me to believe that the Turks, Greeks, and the others still stay out of the environment of the larger society.

The Germans have done a number of studies on the cost and benefits of these programs at their Employment Institute at Erlangen, Germany. They show a high benefit-to-cost ratio, extremely high: 3 or 4:1. The Germans literally have pounds of data available that they will send to you on the topic. The only problem is, it is all written in German.

The Germans have found that the average training period is around eight months, although the law allows for up to two years. Therefore, if we assume an eight-month training period, with an approximate eight-month training cost of $1,200 and a stipend for each trainee of $6,000, then we have a total eight-month training cost of $7,200 per trainee. Let us assume a first year or two training enrollment of one million trainees. Then we are talking, probably at the very outset, of $7 billion or $8 billion, and perhaps the second and third year going to $16 billion. CETA has been running at around $12 billion per year.

It is important to remember one of the points the Germans made. When they instituted their program they found that almost *all of the long-term unemployed immediately were cycled into this program.* That is because the long-term unemployed groups were made up of people who really wanted to get into a whole new skill area. *Therefore, unemployment benefits dropped precipitously.* Studies have shown that what is happening in Germany now is that unemployment insurance is almost 100 percent short-term.

Question: You said that in Japan the large companies have lifetime employees whom they continued to train. What do the employees in the small firms do? Is there a national effort to help them?

Dr. Striner:

I had heard for several years that the Japanese government did almost nothing to help these people. Then one day when I was giving a talk, there was a Japanese official in the audience when I said the Japanese were not helping employees in the small firms. He said very politely, "May I send you some material?" I said, "I would be delighted." So he sent me their Labor Law legislation. It turns out that the Japanese government has unemployment insurance. That is the first thing I had been told they did not have. The unemployment insurance runs for about eight months, and it covers between 50 and 65 percent of a worker's last wage. Ours averages out to around 30 to 40 percent. In Japan, it covers all individuals regardless of prior attachment to the labor force. So, there is unemployment insurance in Japan. But, there is very little that the government does in terms of retraining or counseling. In terms of vocational counseling or regular counseling in the school system, they are about fifteen years behind us.

Question: What about preemployment training for work, such as public vocational education? How do we make up for the lacks?

Dr. Striner:

I think there are several lacks. The first lack is that the average educator, through no fault of his or her own, has insufficient information about where the skill needs are. It is difficult to plan the type of skill training that makes sense unless you have some sort of information base from which to work. The United States, as probably most of you know, is the last major industrial country in the world where we have no job vacancy information. The U.S. Employment Services has job order information but not job vacancy information; these two categories do not always overlap. Therefore, to begin with, unlike Germany, France, and most of the Western European countries where it is compulsory to report job vacancies (which allows them to have some sense of where the job needs are and also allows them to plan their vocational skill training programs), we do not have such a compulsory system. The first suggestion that I would like to make is that perhaps educators should exert some pressure on Congress and the U.S. Department of Labor to move in the direction of finding out how many jobs exist and where. Secondly, I think that we undoubtedly have to exert pressure for funding basic reading programs. Especially with the hard-core unemployed, the rate of functional illiteracy in the country is a major obstacle to skill training. We have moved away from the old types of jobs that required only a strong back and a weak mind. There are very few of those jobs around. A worker must have a fairly decent reading level—probably at least at the sixth or seventh grade level for most of the jobs that we think are worthwhile. Therefore, the major source of pressure on the teachers' unions should be the literacy level of the products of our educational institutions. It's a national scandal!

About a year and a half ago, I began griping about the degree to which most of the educators were very relaxed about illiteracy. While talking to one of the senior staff in the American Federation of Teachers, she made this statement, "We do not have a major illiteracy problem, do we?" I said, "We sure do." I was amazed at what she felt was the level of functional illiteracy in our country. She thought it was very low—it is very high.

I think that we have to get back to applying pressure to provide funding for literacy training. We have to exert pressure on Congress and the U.S. Department of Labor to begin to get the sort of data that we need in terms of where the new jobs and skill needs are going to be.

Question: Isn't it unfair to compare our training programs with those of other countries?

Dr. Striner:

In this country, private industry has shifted the cost of training to either the individual or to the public sector, so that we have this enormous vocational education system. We have technical institutes, we have community colleges and junior colleges, and we have this tremendous continuing education program in our country. Therefore, the comparison makes us look a lot worse than we really are because—in our sloppy fashion, in this disorganized system—we have been able to get, for the most part, the kind of workers we need. (I am not talking about the professional workers who take four to six years to get their training.) We have done studies in the U.S. Department of Labor of who the most skilled workers in the United States are. They are tool and die makers. From our most recent study, we determined that average American skilled workers never start training in an apprenticeship program or even in a vocational education school. Instead, they move from employer to employer to improve their skills, and they end up at a certain level. Now, I am not arguing that

this is a very efficient way, or that it is the quickest or the most sensible way. I simply point out that this type of training is really more of what we have in this country. I think we have to spell out how some American workers make a career in order to make a decent comparison.

Question: To add to the last question, to what degree are we willing to pay some economic costs to preserve individual options and freedoms, individual rights to make a choice, to recycle a career?

Dr. Striner:

I think that the whole question is becoming one of how much more of an economic crisis with regard to low productivity, loss of markets, high levels of unemployment, and high levels of unemployability are we willing to accept before we change our methods of dealing with the problem of training? The training program I have suggested poses no threat to individual options, freedom, or rights. To the contrary, it *gives* options and freedom!

Question: Would not most economists agree that the productivity problem is a problem of management rather than the skill of the worker?

Dr. Striner:

No, most economists would not agree. However, I would say that 80 to 85 percent of our productivity problem *is* a management problem. In addition to management, however, we have a problem that has to do with our institutional values. It has to do with what we are willing to accept as new ways of dealing with problems. We have something called government. I would call it public management. Government has to begin to understand its role with regard to its decisions that affect resource allocation, productivity, and economic growth. These are also management decisions; *public management.*

Let me further comment about why a massive training program has to be based on a national entitlement effort, rather than on individual firms along doing training. In Germany, where management is closer to our form of management, their approach is, "No, we are not about to do this on our own." While there are a number of American firms that do accept this responsibility, such as IBM or Xerox, not many do. In Germany, there are some who do, but most of the Germans are very much like us and refuse. Let me tell you why.

For example, the Chevrolet dealer in Washington D.C. would hesitate to train a front-end mechanic. The attitude would be that the $500 to train the worker could be in vain if the Ford dealer down the street hires the mechanic away from the Chevrolet dealer upon completion of the training. Far too many employers in the United States would rather not train a worker, allow the worker to be trained elsewhere, and then compete for the worker's services. In Germany most employers are willing to accept a payroll tax of 2 percent to supply funding for individuals who want to get their own training and counseling with some help from the federal labor office.

We have far too many people in our country who have no marketable skills but still want to pursue the great American dream of a job and security. We must make a choice. We must either give them the skills, somehow, develop the mechanisms for them to acquire these skills so they can share this great American dream; or we get the other side of the coin. We get property damage and antisocial action. We do have alternatives to training; jail cells cost $40,000 per cell. How many cells do we want to fill? By the way, we have another option: we can shoot them. I do not think that is desirable or realistic, however. Do you?

Finally we have the possibility of investing in these people, even though not all of them are going to pay off. That is a risk we simply must accept. I do not think the market approach is acceptable if we want to increase productivity, if we want to make most people employable. I do not see this happening by virtue of the present approaches. We have to move in the direction of a major change in our policy. We must begin to think in terms of investment in human capital as a very pragmatic way of upgrading skills, developing a labor force that is available to serve the changing needs of new technology, and finally, increasing tax revenues as people get better-paying jobs.

Question: Earlier, you made the point that we are under-investing in vocational skill training. Assume that we have three broad strategies for federal stimulation in this area: (1) investing in training programs such as vocational education; (2) providing entitlements to individuals; or (3) offering tax incentives and other benefits to the private sector. How would you manipulate these three policy alternatives with respect to present status or changes in the mix? Please be as specific as possible.

Dr. Striner:

For short-term, on-the-job training of up to—let's say—a few days per month, I would permit an appropriate company deduction from a tax liability. Adequate proof of the training need would, of course, be required. For major retraining, however, I would use the entitlement and stipend legislation I discussed. The GI bill of World War II model is the one I prefer, and so do the West Germans. This entitlement would pay for training programs in public or private vocational education, community college, or university. Tax incentives also could be utilized in those cases where a company might send an employee to a training program outside of the firm, but where the company continues to pay the full salary of the employee-trainee. Salary costs could be deducted as a cost of doing business.

Basically, short stints of training by a company would be dealt with by tax policy. Longer training, where an employee seeks to remain with the firm and the firm wants to retain the employee, also would be a tax deduction. But all major retraining and basic education would be seen as an investment by the society, and be a part of the entitlement program.

The reason I insist on having a program based on a law that entitles people, as a right, to training results from my reading of our lack of commitment to human resource programs in our history. We tend to react to crisis when it comes to unemployment and training. Fiscal and budget considerations cause funding of human resources and training programs to go up and down like a yo-yo! We delude the average citizen into believing that our token training efforts are really an all-out effort to equip our labor force with skills for jobs. Our highly touted Manpower and Development Training Program of the sixties and the training titles of the Comprehensive Employment and Training Program never accounted for more than one-tenth to one-half of 1 percent of our labor force. The training programs funded by the West German and French governments account for about 2 percent of their labor forces. They do it by having an entitlement program, and that is how we are going to have to do it too—if we are serious, that is.

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